

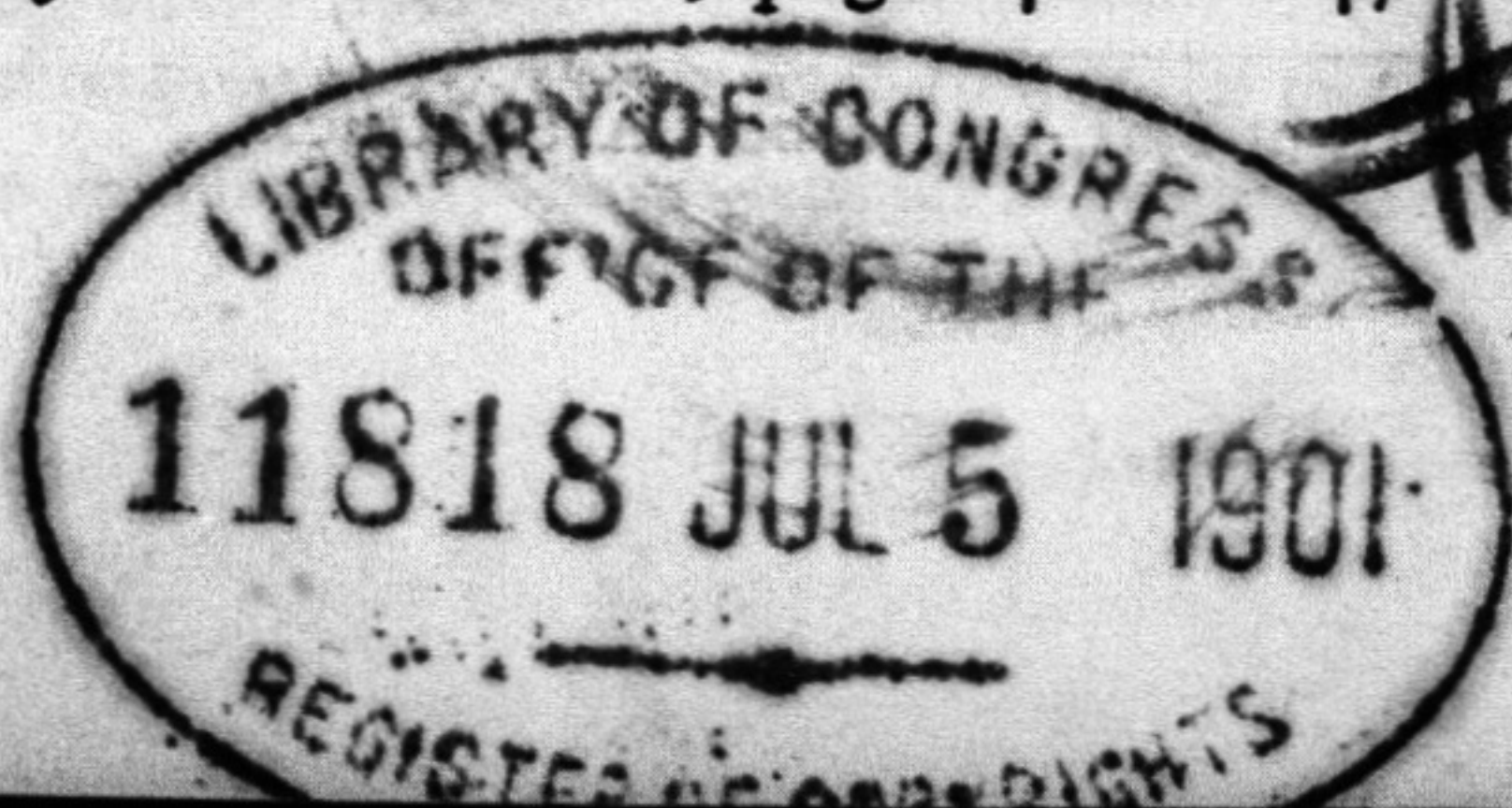
The PHONO GRAM

FIFTEENTH NUMBER

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POINTS PERTAINING TO THE USE AND CARE OF THE EDISON PHONOGRAPH.

(Commenced in December number.)

By C. W. NOYES.

Chapter V.—*How To Replace a Broken Spring.*

This is a job that had best be placed in the hands of an experienced repair-man but when this is inconvenient it is well to know just how to go about it if the following directions are closely adhered to no trouble should be experienced.

First of all, allow your machine to run completely down thereby removing all tension from the spring or springs.

This is a point which is sometimes learned by sad experience and if once you forget this you will have occasion to remember it forcibly for ever afterward.

After the spring is unwound remove the spring barrel or casing which contains the spring.

Mark on the outside of spring barrel the direction of the spring. That is, the direction of the coils of the spring from outside end to inside end. This must be marked in order that the new spring is put back in the same position and with its coils running in the same direction as the old one.

The barrel shaft, or shaft which connects with inside end of spring should be removed and the spring removed from casing.

Do not attempt to pull this out with the hand as the

Copyright 1901, by Herbert A. Shattuck.

spring will uncoil with a great deal of force and is liable to cut the operator. Perhaps the best way to remove the broken spring is to tie a stout piece of cord or wire to the inside end of spring and lay the barrel on the floor, and by pulling on the cord the spring may be started and will come out without danger of injury.

Do not attempt to hold it in any way but allow it to take its own course and it will spin around rapidly as the spring flies out and will do no harm.

Obtain a new spring of the same size as the old one and see that it is held in shape by a wire twisted around it.

Determine the position it is to be inserted in the barrel and drive the binding wire as close to the upper edge of spring as possible. This must be done so that the wire may be removed when the spring is placed in the barrel.

Set the spring in position with the hole in outside end of spring about one inch ahead of the pin or projection in barrel. Now pry the binding wire loose with a screw driver and at the same time hold the spring down in the barrel with a piece of board, when the binding wire is removed the spring will relax and in so doing the hole in end of spring will fit over the pin in barrel.

Now force the barrel shaft into position and see that the pin in same fits into slot in inside end of spring. Replace the barrel and spring in the machine and wind up slowly.

If the hole in outside end of spring has failed to catch on the pin in the barrel, by winding the spring it will cause the outside end to fly around and catch.

The spring should now be thoroughly dusted with graphite (do not oil it) and the machine is again ready for use.

These directions seem simple enough but the fact is the success the operator may have depends a great deal upon

his mechanical ability and the writer would not advise the reader who has no ability in a mechanical line to attempt to replace a broken spring.

(*To be continued*)

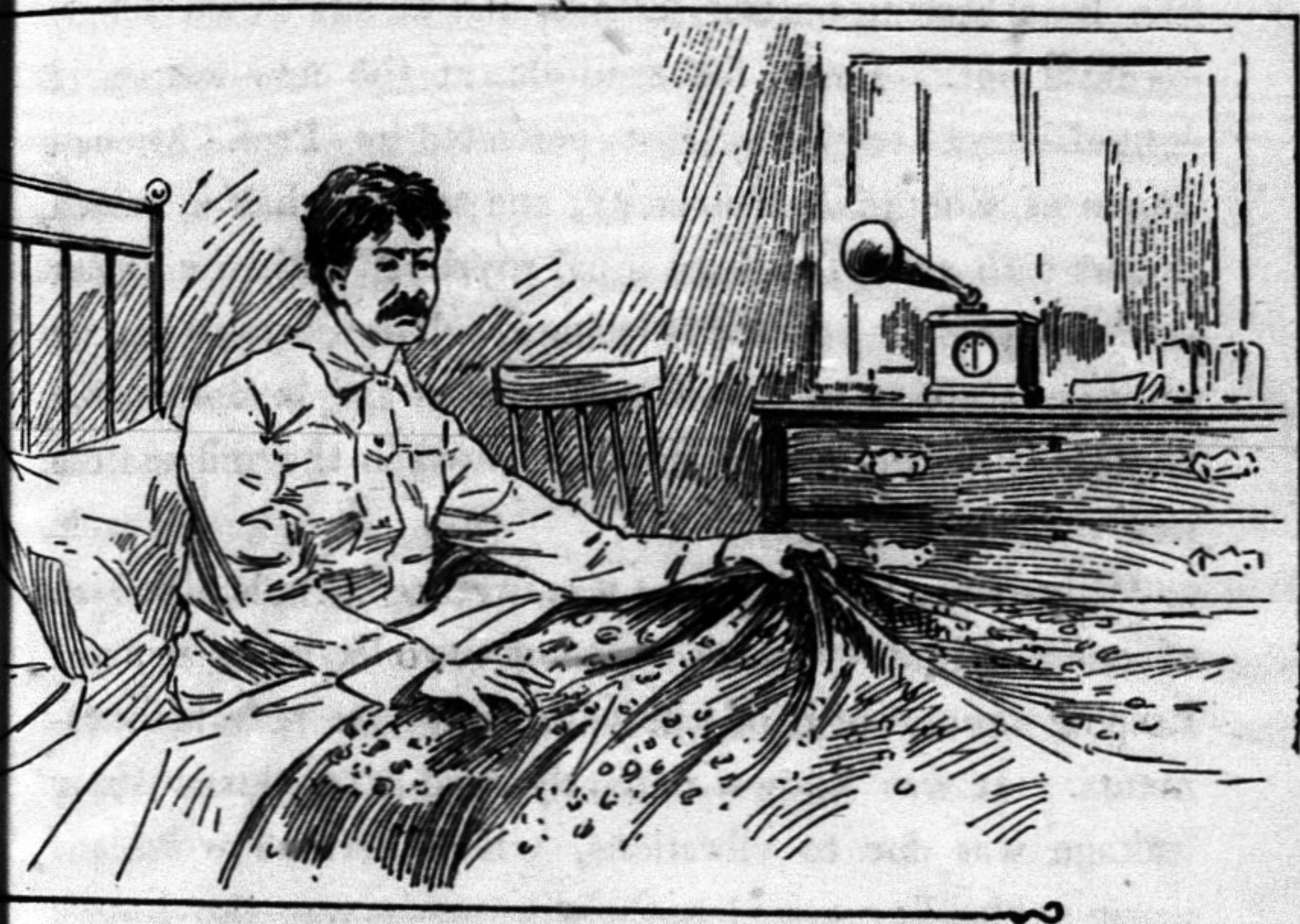
THE PHONOGRAPH AS AN ALARM CLOCK.

A curious development of the Edison Phonograph is found in the speaking watches and clocks now being manufactured in Switzerland. The old repeater, which, on the pressure of an attachment, would strike or repeat the last hour, is thrown entirely into the shade by the new invention. In the new form of watch a button is pressed, but instead of a stroke of a bell the owner is informed of the time in articulate speech. Alarm clocks are also made, but instead of the usual small vibrating bell they call out : "It's 6 o'clock ! Get up ; don't go to sleep again !" These talking watches and clocks are the invention of a French manufacturer who has settled in Geneva.—From the Jackson, Mich., *Press*.

ADVERTISING BY PHONOGRAPH.

A clever Birmingham man has hit upon a brilliant advertising scheme. It consists of automatically-worked Phonographs imprisoned in pagodas such as are used by the telephone company for some of their public-call offices in the London Streets. The Phonograph is set and proceeds to describe a dinner at Smith's for so much or mentions that the invisible and imprisoned speaker is wearing a suit of Brown's clothes, which are really startling value for a small sum.

U



U stands for USEFUL;
The talking alarm
Is simply perfection;
It works like a charm.

THE MODERN INVENTOR.

“The day of haphazard inventing and haphazard discoveries is rapidly passing,” said a local electrician the other evening. “The up-to-date scientist grapples with a certain problem; he knows what he wants to get, he understands the laws bearing on the subject, and he sits down calmly to dig it out. Look, for example, at the new system of long-distance telephony just perfected by Prof. Michael Pupin of Columbia University, and sold for half a million dollars cash and \$17,500 annual royalty! It is the biggest scientific sensation of the day, and well deserves to be, not only on account of the importance of the invention, but because it sharply marks the line between the old and the new methods.

“Ever since the telephone was invented, trouble has been experienced in preventing waste of the electric current and keeping enough of it on the wire to operate remote instruments. It was known perfectly well that this waste or leakage was due to vibrations, which became worse and worse as the line was lengthened, and it was also known that the vibrations could be deadened or ‘dampened’ by putting occasional coils around the main cables. But nobody knew the laws that governed the vibrations themselves, so sometimes the coils would operate and sometimes they wouldn’t; it was all guesswork. Well, that was the problem young Prof. Pupin sat down to solve five years ago—not with experimental machines, but with simple pencil and paper. He saw at once that it was primarily a question of mathematic, and for at least three years he toiled away, slowly evolving the much-needed law of mechanical vibration. At last he rounded it out, and the rest was a mere

matter of application, although he was occupied a couple of years longer building cables for purposes of demonstration. One of them was 500 miles long, coiled up in one immense cellar, and it is said that that part of the work cost, altogether, nearly \$150,000. Who was the financial sponsor of the undertaking hasn't been stated, and in that connection it is an interesting circumstance that Pupin and Tesla, who are fellow countrymen—Servians—are the only two eminent electricians of the day who have ample wealth placed at their disposal for the development of their ideas. Much curiosity has often been expressed as to Tesla's unknown banker, for he is personally poor; and, in the case of Prof. Pupin, it is clear that some generous capitalist was at hand, ready and willing to back genius to the limit. Rest assured, the big things of the future will be found by highly trained specialists who know exactly what they are going after and who are supplied with unlimited funds. The result will then be merely a matter of so much brain grind."—*New Orleans Times-Democrat*.

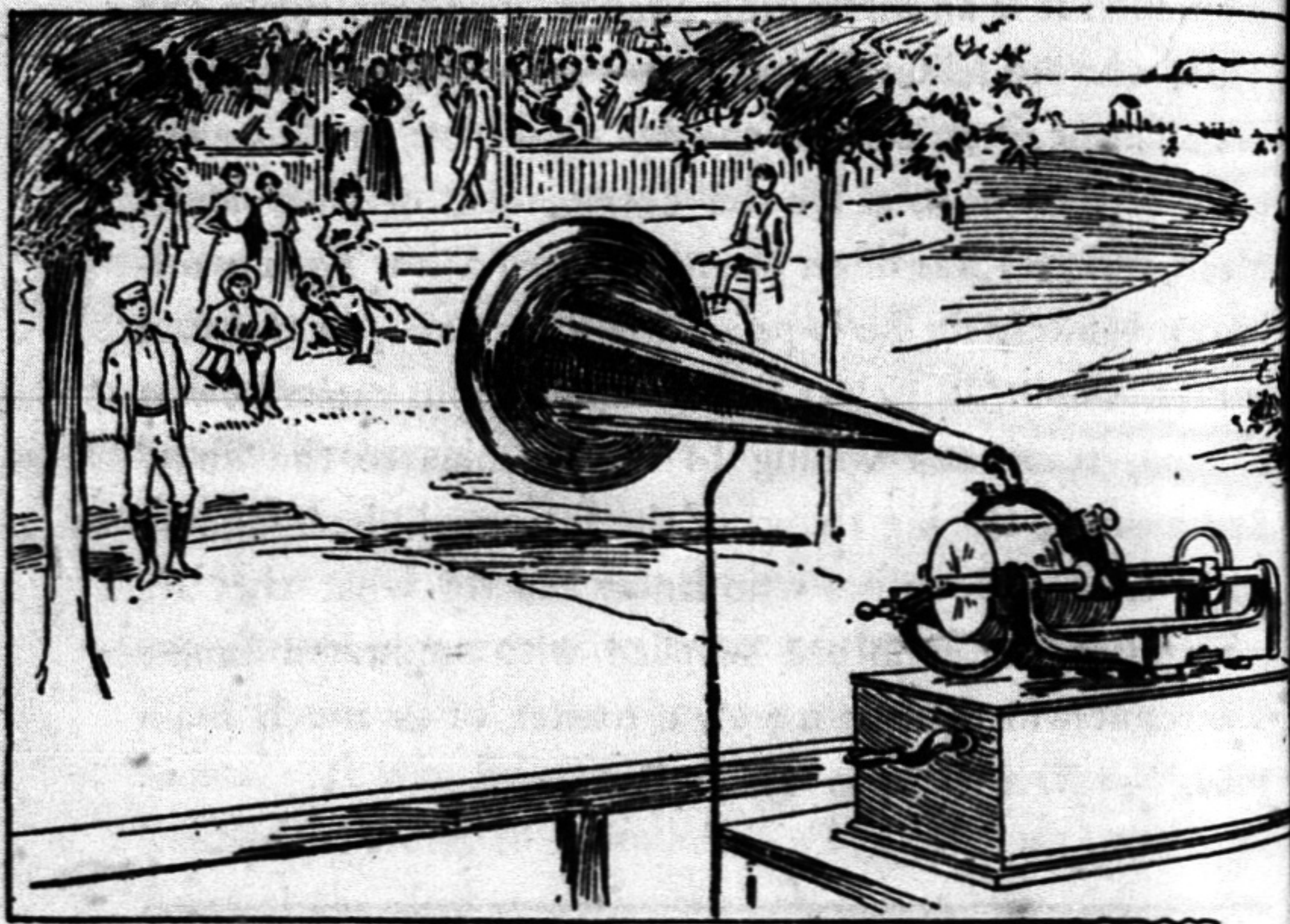
PERSONAL NOTE.

It is with great pleasure that we announce that our Mr. Shattuck has recovered sufficiently to enable him to leave for Matamoras, Pa., where he hopes to fully regain his health.

In all probability, before our next issue, he will be able to resume his labors in connection with this booklet.

“KIM.”

V



V is a VILLA
Whose *Phonograph* plan
Shows the owner to be
A good-hearted man.

PAN-AMERICAN NOTE.

There is no doubt but what a great many of our readers purpose visiting the great Fair at Buffalo some time between now and November, and all who do will find something of interest at our space in the Electrical Building.

All who are interested—and who are not?—in the outcome of the ideas emanating from the great brain of the wonderful Thomas Alva Edison will be welcome, and the time will be well spent in examining the “Edison Laboratory Products.”

MAKE IT YOUR HEADQUARTERS.

Have your telegrams and mail forwarded in our care, and our Exposition Manager, Mr. W. H. Markgraf, will give you a cordial greeting and make you feel at home.

THE PHONOGRAPH IN NAVIGATION

At the last meeting of the Polytechnic Society an engineer named Leisner explained a new kind of Phonograph for service at sea. By coupling together several membranes, between each of which a microphone is fixed, he has succeeded in so strengthening the tone emitted by all sound that any noise can be heard for a distance of three sea miles. It is suggested that by means of this invention a commander at sea will be able to issue his orders to all the ships in his fleet, and that in the same manner ships will be able to communicate with each other in the densest fog. Of course, it would be equally useful on land, and railway accidents, it is thought, may be also greatly diminished, as warnings could be given at long distances apart.

—From the *American*, Baltimore, Md.

ENTERPRISING BOOTBLACK.

Toledo has a bootblack who has the boldness and energy of a Chicago pork packer. Enterprise is the slogan of the day. Increased competition has brought this about, and the bootblack has his little business schemes just as have the bulls and bears on 'change. This youth of business acumen has a little stand at the corner of St. Clair and Madison Streets, and has as assistants a young man and a boy. The stand contains some unique furniture for a bootblackening establishment. There are three chairs in the inclosure, and at one end is a Phonograph with which customers are entertained if they so will. At the other end is a bushel basket of luscious apples with which the men with shoes to be cleaned are also regaled. Sometimes when a customer looks pretty particularly genial, the boys sell him an apple or two. There is no telling but what the next attraction will be a couple of dancing girls or a recherche monologist.—From the *Journal*, Boston, Mass.

“That will be a popular song,” commented the composer’s friend. “Is it as bad as that?” groaned the composer.—From the *Detroit Free Press*.

A DAINY BIBELOT.

WE SAT APART by Eugene Lee; a charming little love poem, quaintly conceived, and written in a manner that will appeal to all—especially lovers. It is choicely printed on hand made deckle edge paper, and is bound in old style wrappers. Price, postpaid, fifty cents. Auguste Giraldi, No. 139 Fifth Avenue, New York City.—*Adv.*

The PHONOGRAM

SUBSCRIPTION THIRTY CENTS A YEAR
SINGLE NUMBERS, FIVE CENTS

Published by HERBERT A. SHATTUCK
at NUMBER 135 FIFTH AVENUE, NEW YORK CITY

¶ *Printed Monthly for those interested in the Arts of Recording and Reproducing Sound; also for those interested in Animated Pictures. ¶ Official Handbook of The Order of The Phonogram. ¶ A very Special Department will be devoted to all Questions and Answers relating to Phones, Graphs, Grams, and Scopes. Correspondence welcomed by the Editor.*

JULY NOTES.

¶ “A queer thing about moving pictures for the Kinetoscope,” said an expert operator in that line to me the other day, “is the illusion they generally produce as to the time they occupy on the screen. What is known as the ‘standard exhibition film’ is fifty feet long. It is used almost entirely for comic scenes, trick pictures and other effects that are gotten up in the studios of the experts who make them a specialty. Every theatre-goer has seen them, and I will venture the assertion that the average man will declare they take at least three or four minutes in passing before the eye. As a matter of fact the picture is on the screen less than one minute. You can easily figure it out for yourself. The ordinary fifty-foot film of the kind to which I refer is put through the reproducing machine at the rate of sixteen pictures to the second. Each picture is three-fourths of an inch broad, which makes the sixteen measure exactly one foot, edge to edge; in other words,

the film travels a foot a second—fifty feet, fifty seconds. What gives it the effect of taking up so much more time is the immense lot of action that is crowded into the brief period it is on view. Until the moving picture was invented, I don't think anybody had the least idea how much could be done in fifty seconds. It seemed hardly enough time to turn around in, yet when the experts began to study its possibilities they found it was ample for hundreds of little pictorial comedies that have since delighted audiences all over the world. It is entirely a matter of rehearsal. A subject is selected, generally calling for from three to four people, and every detail of the business action is carefully worked out in advance.

“But some of the most telling effects in composition pictures,” continued the operator, “have been the result of accident and were entirely unpremeditated. That was the case with the film that I had in hand preparing and which afterward made a tremendous hit and proved to be one of the best sellers ever put on the market. In getting up the picture, our principal purpose was to introduce a large and very intelligent bulldog I owned at the time, and we sketched out a simple little scene in which a tramp steals a pie from a kitchen window, is pursued by the dog, and is last seen trying to scale the back fence, with the animal hanging to his coattails. The training of the dog was the main trouble, but I finally taught him to lay hold of anything red, and we sewed a big piece of flannel as a mark on the back of our tramp's coat. Red photographs black, so it couldn't be seen in the pictures, and after a good many rehearsals, the dog learned to dash out at exactly the right moment and nail the marauder, whose cue was then to rush for the fence and consume the remaining time

in making an apparently desperate effort to scramble over the top. At last we got everything all ready, gave the word, and started the record machine to take the picture. Immediately the little comedy began the tramp appeared, looked around stealthily, saw the pie, hooked it, and was having a feast when out sprang the bulldog and seized him by the coattails. He thereupon sprinted to the fence and was about to carry out the rest of the programme, when, to our consternation, the boards gave way and he came down bang on top of the dog. The film had about ten seconds to run, and they were occupied in recording one of the liveliest scraps that ever happened. There was no hippodrome about it. Both parties were out for blood. When the fence fell, the bulldog had promptly transferred himself from the tramp's coattail to the tramp's calf, while that unfortunate person snatched up a broomstick and tried to pry him loose. They rolled over and over and put about fifty times as much action and animation in the last ten seconds as had been crowded into the preceding forty. We finally pulled them apart, and it was not until the negative was developed that we realized what a prize we had accidentally secured. That earnest and impromptu windup has convulsed audiences all over Christendom, and made fully as much of a hit in Europe as it did at home. It is old now, but it is still a sort of standby in the vaudeville houses, and never fails to raise a laugh. If a man had a monopoly of such lucky flukes, he would soon get rich."

THE NEW STORAGE BATTERY.

"It is the simplest thing in the world," declares the inventor in an interview.

Mr. Thomas Alva Edison has at last succeeded in accomplishing what all other electrical experts have been endeavoring to do for the past decade, and that is, to produce a *light-weight* storage battery, without impairing its efficiency.

That this has been accomplished is evidenced by the fact that a company was recently formed with a capital of \$1,000,000, the purpose of which is to manufacture and market the perfected battery.

Herman E. Dick, of Chicago, Ill.; Walter S. Mallory, and William E. Gilmore, of Orange, N.J., are the incorporators. The latter is General Manager of all the Edison plants. An immense plant has already been secured by the company at Glen Ridge, N. J., where a great number of hands will soon be employed.

The present company will undoubtedly be the parent concern of subsidiary companies to be organized in other countries.

It is said that the secret of Mr. Edison's achievement lies in the use of iron and nickel oxide plates in an alkaline solution instead of lead and oxide. "KIM."

NEW EDISON RECORDS

Both Standard and Concert Records may be ordered from this list.

Transfer from Sweet to Mesloh

Concert Polka 2405 and Yankee Doodle 2434

7850 I must a been a dreamin *Comic coon duet* Co & Na
7851 Tyrolienne, with variations *Cornet solo* Mes

NEW EDISON RECORDS

- 7852 Hello Central Give me Heaven *Sent'l song* Har
 7853 Ma Blushin' Rosie, from Fiddle-dee-dee Miss N
 7854 Home Sweet Home Miss Price
 7855 She's getting more like the white folks every
 day *Comic coon song* Q
 7856 Olympia Hippodrome March Band E
 7857 Medley of Plantation Melodies *Quartette* E Q
 7858 Zamona, by the author of Salome Banjo O
 7859 Yale Boola March *with College cries.* Orchestra P
 7860 The Birds and the Brook *with Bird effect* " P
 7861 Uncle Josh Weathersby's Huskin' Bee Dance
 Everybody present, "fiddler" and all, with
 Uncle Josh "Callin' off" Stw
 7862 Melancholy Mose, *Coon song with Banjo*
 accompaniment and duet chorus Co
 7863 Calantha Waltzes Band E
 7864 When the Boys come home once more,
 Military song from The Messenger Boy Du
 7865 As the Summer days go by *Sentimental song* Mah
 7866 Shultz on Hypnotism *Comic Recit* Ken
 7867 The Turkey and the Turk *Comic song* Den
 7868 Battle of the Waves March Banjo O
 7869 The Lamb's Gambol " O
 7870 Absence makes the heart grow fonder *Sent'l song* Mac
 7871 I've a longing in my heart for you, Louise " Na
 7872 My Rainy Daisy *Serio-comic love song* My
 7873 A Coaching Party, *Desc. selection, with coach*
 horn, stop for refreshments, dialogue and
 effects Orch P
 12187 Ave Maria, adapted from Intermezzo Cavalleria
 Rusticana *Italian song* V
 12188 Serenata Arragonesa *Spanish song* V
 12198 A la Luz de la Luna *Danza.* *Spanish song* V
 12199 Romanza del Diablo en el Poder *Spanish song* V
 12201 Tango de la Menegilda en La Gran Via " V
 12202 Nara *Swedish Elm*

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